Frederik Gram Kortegaard

frederikxyz@hotmail.com github.com/frederikgram Tel. +45 25790669

Personal Profile

Full-stack developer with professional experience working with Deep Learning, Natural Language Processing, Computer Vision, and Micro-Services. Passionate about Quantitative Finance and Compiler Development.

Competences

Languages

C/C++	Python	Rust
Java	Haskell	x86 ASM
Lua	Javascript	

Keywords

Machine Learning Algorithms
Natural Language Processing
Computer Vision Algorithms

System- & Build Tools

Git	AWS	Docker
Jira	Kubernetes	Elastic
Maven	Jenkins	Kibana

Domain Specifics

Tensorflow	PyTorch	Keras
OpenCV	Pandas	Scikit-Learn
NLTK	SpaCy	

Work Experience

- **Universal Robots** - Data Analyst wrt. Predictive Maintenance

  At Universal Robots I was employed in the Research and Development department utilizing Data Science and Machine Learning techniques for the purpose of predictive maintenance for robotics using Python, sklearn, TensorFlow, and C++. I further partook in the development of a user-facing data gathering platform using Java, and worked with management and build tools such as Jira, Maven, Docker, and Jenkins.

- **Findwise** - Consultant wrt. Natural Language Processing

  At Findwise I created and implemented Machine Learning and Natural Language Processing based micro- services into our data analysis pipeline, serving primarily as a part of our GDPR-compliance product chain.
  In connection to this, I further built Computer Vision algorithms and developed techniques to find and extract relevant metadata from various non-trivial file types such as scanned documents and blueprints.

Featured Projects

- **Eridu: A Custom Programming Language**. **[GitHub]** — **[Thesis]**

  Developed a fully fledged C-Like programming language featuring various abstract data types, functions as first-class citizens, and multi-paradigm functionality. Every step including semantic analysis, machine independent optimization, custom intermediate representations, and x86 Assembly code generation was written from scratch in C.

- **Content-based Deep Image-Search**. **[GitHub]** — **[Paper]**

  Created a search engine using TensorFlow, NLTK, and OpenCV that allows users to search images by describing their appearance using conversational language. Allowing for context to be specified such as *"five people running on a beach while carrying water bottles"* without any pre-existing metadata.

Education

- Bachelor of Computer Science at the University of Southern Denmark